<u>Abstract</u>

A method of producing male or female sterile plants comprising providing means for inactivating a herbicide and means for reactivating the thus inactivated herbicide, wherein the herbicide inactivating means is provided within vegetative tissues and the reactivating means is provided in either the male or female reproductive structures of the plant, so that the vegetative, but not reproductive, structures are protected from the phtyotoxic activity of the herbicide when applied to the plant.